Acid Rain Field Audit Program

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The Importance of Field Audits

- Identify problems that may be universal (software, etc)
- To provide incentive to managers to commit resources to monitoring
- To encourage sources to adopt “prevention” based operations

Acid Rain Program
Field Audit Manual

http://www.epa.gov/airmarkets/

monitoring/auditmanual

The Basic Elements of a Field Audit

- QA/QC Plan
- Maintenance Records
- Hardcopy Records of Q/A Tests
- Missing Data
- Observation of Test Procedures

Quality Assurance/ Quality Control Plans

- Required - Appendix B, section 1
- Must be updated (CEMS change over time)
- Vender supplied plans good starting point
- Updated QA/QC plan provide continuity
- Updating QA/QC plan provides opportunity to examine procedures with technical staff
- Provides chance to improve O&M efficiency

Hints: QA/QC Plan

- Have technician check Expiration Date on Gas Bottle Certificate prior to performing Linearity Check and sign off on checksheet
- Have technician log-out CEMS prior to performing Linearity Check to prevent having to manually invalidate data
- Check RATA results for moisture basis -put reminder in QA/QC plan

Maintenance/Incident Log

- Required Appendix B, subsection 1.1.3
- Should be descriptive enough to reconstruct maintenance or indicate QA/QC event
- It is required that it contain the date and time that any testing or maintenance took place
- Date and time in log must corroborate with Missing data
- A well-kept log can minimize missing data

Hints: Maintenance Records

- Have someone at plant who is unfamiliar with CEMS program try to reconstruct events from maintenance records and incident logs
- Try to tie missing data periods to maintenance records

Hints: Hardcopy Records of Q/A Tests

- Are they easy to access? Could you get them if the performance of a flow monitor was in doubt?
- Spot check RATA and Linearity results against EDR. Did the right data make it into the EDR?
- Was the Bias Adjustment Factor (BAF) changed at the end of each RATA ?

Missing Data Hints

- Scan data for errant data flags (-9999, etc)
- Scan your data. If your PMA is high, missing data should not be very different from quality-assured data
- Make sure that you use the diluent cap, so that the missing data does not include obscenely large NOx emission rates (1000 lb/mmBtu for instance).